

IN THE CLAIMS:

Please cancel Claims 9, 10, 13, 17, 18, and 26-30, without prejudice to or disclaimer of the subject matter therein.

Listing of Claims:

1. (Original) An assay for identifying a compound as an HIV inhibitor, said assay comprising
 - a) contacting a cell-derived protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle 42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L and glutaredoxin with the compound;
 - b) comparing a biological activity of the cell derived protein in the presence and absence of the compound; and
 - c) identifying a compound as an HIV inhibitor if the biological activity is reduced in the presence of the compound.
2. (Original) The assay of Claim 1, wherein said cell-derived protein is encoded by the complementary sequence of a nucleic acid sequence selected from the group consisting of: SEQ ID NO:96, SEQ ID NO:98, SEQ ID NO:100, SEQ ID NO:102, SEQ ID NO:104, SEQ ID NO:106, SEQ ID NO:108, SEQ ID NO:110, SEQ ID NO:112, SEQ ID NO:114, and homologs thereof.
3. (Original) The assay of Claim 2, wherein said complementary sequence corresponds to a less than full length fragment of a gene that encodes a protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle 42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L, glutaredoxin and homologs thereof.
4. (Original) The assay of Claim 1, wherein said cell-derived protein is contained in a cell.

5. (Original) The assay of Claim 4, wherein said cell is selected from the group consisting of a HIV-infected cell and a HIV-susceptible cell.

6. (Original) An assay for identifying a HIV inhibitor, said assay comprising

a) contacting a cell expressing a nucleic acid molecule encoding a protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle 42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L and glutaredoxin with the compound;

b) comparing expression levels of the protein in the presence and absence of the compound;

c) identifying a compound as an HIV inhibitor if expression of the protein is reduced in the presence of the compound.

7. (Original) The assay of Claim 6, wherein said cell-derived nucleic acid molecule comprises the complementary sequence of a nucleic acid sequence selected from the group consisting of: SEQ ID NO:96, SEQ ID NO:98, SEQ ID NO:100, SEQ ID NO:102, SEQ ID NO:104, SEQ ID NO:106, SEQ ID NO:108, SEQ ID NO:110, SEQ ID NO:112, SEQ ID NO:114, and homologs thereof.

8. (Original) The assay of Claim 7, wherein said complementary sequence corresponds to a less than full length fragment of a gene that encodes a protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle 42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L, glutaredoxin and homologs thereof.

9. (Cancelled)

10. (Cancelled)

11. (Original) The assay of Claim 6, wherein said cell-derived nucleic acid is contained in a cell.

12. (Original) The assay of Claim 11, wherein said cell is selected from the group consisting of a HIV-infected cell and a HIV-susceptible cell.

13. (Cancelled)

14. (Original) A method for selecting a HIV inhibitor, comprising:

(a) exposing a cell expressing a nucleic acid molecule encoding a protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle 42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L and glutaredoxin to a putative inhibitory compound;

(b) measuring the expression of said nucleic acid molecule in said cell;
and

(c) determining if said putative inhibitory compound down-regulates expression of said nucleic acid molecule.

15. (Original) The method of Claim 14, wherein said cell is cultured under conditions suitable for expression of said nucleic acid molecule in said cell.

16. (Original) The method of Claim 14, wherein said cell is selected from the group consisting of a HIV-infected cell and a HIV-susceptible cell.

17. (Cancelled)

18. (Cancelled)

19. (Original) The method of Claim 14, wherein step (c) further comprises determining levels of mRNA transcribed from said nucleic acid molecule before and after exposing the cell to the putative inhibitor compound according to step (a).

20. (Original) A method for selecting a HIV inhibitor, comprising:

(a) exposing a cell to a putative inhibitory compound, wherein said cell contains a biologically active form of a protein selected from the group consisting of SH2-containing inositol 5-phosphatase, guanine nucleotide binding protein beta polypeptide 2-like 1, arginyl tRNA synthetase, ABC transporter, cell division cycle

42 GTP-binding protein, cyclosporin-A 19, src kinase p59, cathepsin B, cathepsin L and glutaredoxin;

(b) measuring the activity of said protein in said cell; and

(c) determining if said putative inhibitory compound interferes with the activity of said protein.

21. (Original) The method of Claim 20, wherein said cell is selected from the group consisting of a HIV-infected cell and a HIV-susceptible cell.

22. (Original) The method of Claim 20, wherein said putative inhibitory compound is exposed to said cell *in vitro*.

23. (Original) The method of Claim 20, wherein said putative inhibitory compound is exposed to said cell *in vivo*.

24. (Original) The method of Claim 20, wherein said cell is cultured in conditions suitable for production of an active form of said protein.

25. (Original) The method of Claim 20, wherein step (c) further comprises determining if a substrate for said protein is modified.

26-30. (Cancelled)